

Amendments to the Claims:

1 – 18 (canceled)

19. (currently amended) A metallic protective layer, consisting essentially of comprising:

11.5 to 20.0 % chromium (wt%);

~~0.3 to 1.5 %~~ silicon (wt%);

less than 1.0 % aluminum (wt%);

up to 0.7 % (wt%) of at least one metal selected from the group consisting of scandium and the rare earth elements; and

remainder iron and production-related impurities.

20. (previously presented) The metallic protective layer as claimed in claim 19, further comprising up to 0.7 % yttrium (wt%).

21. (currently amended) The metallic protective layer as claimed in claim 20, wherein the metallic protective layer comprises:

12.5 to 14.0% chromium;

~~0.5 to 1.0%~~ silicon;

0.1 to 0.5% aluminum.

22. (currently amended) A layer system, comprising:

a metallic substrate; and

a metallic protective layer applied and bonded to the substrate by adhesion, comprising:

11.5 to 20.0 % chromium (wt%),

~~0.3 to 1.5 %~~ silicon (wt%),

less than 1.0 % aluminum (wt%),

~~up to~~ up to 0.7 % (wt%) of at least one metal selected from the group consisting of scandium and the rare earth elements, and

remainder iron and production-related impurities.

23. (previously presented) The layer system as claimed in claim 22, wherein the substrate is ceramic or an iron-base, nickel-base or cobalt-base superalloy.

24. (previously presented) The layer system as claimed in claim 23, wherein the metallic protective layer is ferritic.

25. (currently amended) The layer system as claimed in claim 24, wherein the metallic protective layer and the substrate are ferritic and the protective layer bonds to the substrate by adhesion.

26. (previously presented) The layer system as claimed in claim 25, wherein the layer system is not diffusion treated.

27. (previously presented) The layer system as claimed in claim 26, wherein the coefficients of thermal expansion of the ferritic protective layer and of the ferritic substrate are within 10% of each other.

28. (previously presented) The layer system as claimed in claim 27, wherein the substrate is 1% CrMoV steel or a 10 to 12% chromium steel.

29. (canceled).

30. (currently amended) The layer system as claimed in claim ~~29~~28, wherein a zirconium oxide based thermal barrier coating is applied to the metallic protective layer to form a turbine component.

31. (previously presented) The layer system as claimed in claim 30, wherein the turbine component is selected from the group consisting of: a turbine blade, a turbine vane, a housing part, a region of a housing, and a combustion chamber lining.

32. (previously presented) The layer system as claimed in claim 31, wherein the protective layer thickness is between 100 μm and 300 μm .

33. (previously presented) The layer system as claimed in claim 32, wherein the layer system is suitable for exposure to a temperature of up to 950°C.

34. (currently amended) A high temperature gas turbine component, comprising:
a metallic or ceramic substrate; and
a metallic protective layer comprising:

11.5 to 20.0 % chromium (wt%),

0.3 to 1.5 % silicon (wt%),

less than 1.0 % aluminum (wt%),

up to 0.7 % (wt%) of at least one metal selected from the group consisting of
scandium and the rare earth elements, and

remainder iron and impurities, wherein the metallic protective layer is applied and
bonded to the substrate by adhesion.

35. (previously presented) The component as claimed in claim 34, wherein the component substrate is a iron-based, nickel-based or cobalt-based super alloy.

36. (previously presented) The component as claimed in claim 35, wherein the component is selected from the group consisting of: a turbine blade, a turbine vane, a housing part, a region of a housing, and a combustion chamber lining.

37. (previously presented) The component as claimed in claim 36, wherein the metallic protective layer thickness is between 100 μm and 300 μm .

Serial No. 10/582,149

Atty. Doc. No. 2003P08284WOUS

38. (previously presented) The component as claimed in claim 37, wherein the metallic protective layer comprises:

12.5 to 14.0% chromium;

0.5 to 1.0% silicon;

0.1 to 0.5% aluminum.